

NEW-YORK MEDICAL AND PHYSICAL JOURNAL.

APRIL, MAY, AND JUNE, 1828.

No card

ART. I. *A Lecture on Medical Philosophy, delivered in the College of Physicians and Surgeons, on Monday the sixth of November, 1827.* By J. AUGUSTINE SMITH, M.D. Professor of Anatomy and Physiology in the University of the State of New-York.

[The following Discourse is published partly to correct erroneous impressions of its scope and objects, and partly in the hope that a wider diffusion of the principles which it inculcates will tend to the permanent improvement of Medical Science.—J. A. S.]

GENTLEMEN,

My name standing first in the numerical order of my colleagues, it has, in consequence, devolved upon me to open the present session of the College. To discharge this duty with propriety, anatomy and physiology, the subjects especially committed to my charge, must be for the time in abeyance. A wider field is to be ranged, and some topic must be selected not less interesting but more comprehensive. Accordingly, I propose to engage you in a discussion sufficiently general and sufficiently important. It is my design to examine into the philosophy which has prevailed, and still

prevails, in medicine—an investigation which, in my opinion, is greatly required. For look first at the records of our science, and see how theory, as these whimsies have been termed, has succeeded theory, each rising and glittering, yet bursting in its turn. Observe, then, the actual condition of the profession, and what a scene does it exhibit to those, who feel what their vocation ought to be—who are aware what it is—and who reflect how large a portion of human happiness depends upon the soundness of medical principles and the correctness of medical practice ! Every where are we mortified by frivolous disputes and idle conjectures, assertions which are apocryphal and systems which are false ; the whole rendered more humiliating and disgusting by a copious admixture of bad feelings and angry passions. But this never can be right—we must have gone astray—we must have failed to observe those dictates of right reason which, as rules of philosophizing, have conducted other inquirers, with serene tempers and kindly dispositions, to certainty and truth. Here then must be the fault ; here must be the source of all our errors, our broils, and our contests. OUR PHILOSOPHY IS WRONG AND REQUIRES TO BE CORRECTED.

To induce and to enable you to make this correction, are the objects of the ensuing discourse. In their pursuit, I shall first give you some idea what philosophy really is ; I shall next point out the mistakes with regard to it which have been committed ; I shall then show you the evils resulting from those mistakes ; and lastly, I shall endeavour to deduce from the principles which shall have been established, the means of permanent improvement to the healing art.

To begin then with our philosophy.

When any occurrence attracts our attention, our curiosity is excited, and we wish to understand it. Now an explanation must be sought in one of three several ways. We must simply generalize the fact, or we must resolve it into another fact of a more comprehensive character, or lastly, we must enumerate in the regular order of succession, the circumstances which precede the event under consideration. In the two first cases, our solutions are complete when we ar-

rive at what are called the Laws of Nature, or more properly ultimate facts ; in the last, our analysis is perfected when we ascertain the entire series of phenomena which can alone usher in the one which we are investigating.

Such, gentlemen, is philosophy when reduced to its bare elements, and the propositions which express it in this very abstracted form, would admit of much curious illustration. To indulge in this, however, would be too foreign to our present purpose, and a single example under each head must suffice.

Suppose, then, we wish to know why a stone falls to the ground? The reply is, that all bodies mutually attract, and consequently the earth and the stone acting in this manner on each other, are brought into contact. Here you perceive that a fact which is general has been substituted for one that is particular.

But it may be occasionally observed that bodies, instead of approaching the earth, move in an opposite direction, and we may be desirous of knowing whence this proceeds. To satisfy our curiosity, Natural Philosophy demonstrates that the ascent of bodies which are light, is as much the effect of the attraction of which I have spoken, as the descent of those which are heavy. In this case, then, we have two particular and apparently opposite facts resolved into the more general one of gravitation.

Lastly, we sometimes hear it thunder, and the cause of this may be an object of inquiry. In that event, the same science shows us that there is a fluid called electricity ; that this fluid is liable to have its equilibrium disturbed ; that when this happens, there is a strong tendency in it to pass from those bodies having an excess, to those in which there is a deficiency, &c. In other words, to account for the noise called thunder, we have to enumerate, in the order in which they occur, all the circumstances which of necessity precede the perception of such a sound by the ear.

Now these various modes of explaining the phenomena of the physical or moral world, and the method of investigation with regard to both is the same, agree in some respects,

though they differ in others. They all agree in proceeding upon facts and nothing but facts ; and they further concur in terminating in facts, of which no other account can be given than that such is the will of the Creator.

But there is a marked distinction in the conclusions to which these different processes lead. If we adopt either of the two first, our results are general. If we employ the last, our inquiries, however far they may be pushed, must always end in particulars. By the first two methods, when carried to their utmost limits, we establish, as I have already observed, the Laws of Nature, and to one of these laws it follows as corollary, there can be no exception. For whoever undertakes to announce such a law, does in reality aver that some fact is universally and invariably true. But if it can be shown, in any one instance, that the supposed fact is not universally and invariably true, the statement of course is false, and the law does not exist. Take the law of gravity to which I have before referred as an example. It is expressed in the following words : “ that bodies attract each other directly as their masses and inversely as the square of their distances.” Now if it can be proved that there is any one body in the universe, with regard to which this rule does not obtain, there is no such thing as the law of gravity.

To apply this to medicine. Suppose a theorist to lay it down as a law of the system, that the cause of fever is an inflammation of the stomach and bowels,* (the gastro-enterite of the French schools) and any one patient can be produced labouring under this disease, in whom no inflammation of the kind exists, there is an end of the proposition as a law. For independently of what I have already stated,

* It is alleged by the friends of Mons. Broussais, that he does not invariably locate his inflammation in the stomach and duodenum. Exceptions to his general proposition are, I suspect, extremely rare in the mind of Mons. B. ; but it will be seen that my argument applies to his rule, however modified, and is equally valid, whatever view of his doctrine may be taken.

it must be for ever borne in mind, what seems never to have occurred to some speculators in medicine, that one breach in the succession of events, provided it be sufficiently established, is as fatal to our notion of cause and effect, as a thousand such failures. What may be the connexion between phenomena, in virtue of which one follows another, it is not necessary for me to inquire, since it is admitted on all hands that invariability of antecedence is absolutely indispensable to the idea of causation. Mere coincidence, therefore, as regards time and place, however frequent, if not perfectly uniform, is to be held fortuitous and not essential. Now that multitudes of cases of fever have occurred where there was no trace of inflammation of the stomach or intestines, or indeed of any other organ, is as certain as dissection, to say nothing of other proofs, can render any negative fact in the world. What then becomes of Mons. Broussais' law?

But to return. The different methods of philosophizing which I have mentioned, have their respective advantages, but they cannot be used indiscriminately. The tendency of the mind is strongly in favour of the second, that is, to refer less general to more general facts. And this, where it can be done with propriety, is commonly the most useful and by far the most gratifying. The discovery, indeed, of a reference of this kind, where the facts are numerous and imposing, and to common observers remote and contradictory, is the most exquisite of all intellectual enjoyments.* No wonder then there should be such a propensity to attempt them. Where however we know and can command all the circumstances upon which any event depends, the event itself is of course under our control, and for practical purposes nothing further can be required. The objection is, that where these antece-

* The "Εὐρηκα! 'Εὐρηκα!" of Archimedes will at once occur to the reader; and I have heard that Dr. Rittenhouse, on one occasion, almost fainted with pleasure at the verification of an astronomical prediction. Every cultivator of science, however, must have felt something of the intense delight which the discovery of truth imparts to the human mind.

dent circumstances are very numerous the mind is unable to retain them, whereas a happy generalization will embrace a whole science in a single theorem. But such generalizations I fear are little to be expected in medicine, and as the effort to introduce them is the besetting sin of the profession, and the daily source of incalculable mischief to the public, I must, if possible, guard you against the error. To do this was, indeed, the primary object which I proposed to myself when I determined to engage in the present inquiry. I shall therefore expatiate upon it somewhat at large, explaining first the difficulties attending all grand and comprehensive doctrines in medicine, showing secondly the abortiveness of all the attempts which have hitherto been made to introduce such doctrines into the profession, and lastly exhibiting the pernicious consequences which these attempts have produced, both to us and to others.

In the first place then, in all cases of general disease the nerves are more or less implicated, and wherever these mysterious agents are brought into action, our philosophy is exceedingly apt to be foiled. So long as we confine our attention to the bones, muscles, and blood-vessels, we *seem* to comprehend something of what is going forward; but the moment the nerves become involved, all our *a priori* reasoning is overthrown, and I have sometimes thought that the rule of *contrary* afforded the best approximation to the truth.

Secondly. The most efficient agents in the production of disorders, are not cognizable by our senses. Miasmata and atmospheric poisons give us no notice of their presence. We see nothing but effects, and these effects undergo the most extraordinary mutations without previous warning in the first instance, or assignable cause in the second.

Thus the general character of the maladies which infest our country is inflammatory, but in 1813-14, this type was, without the slightest premonitory intimation, suddenly reversed, insomuch that bark and wine became in my hands the remedies for ordinary pleurisy. We talk, indeed, under such circumstances, as Sydenham did, "of the constitution of the atmosphere." But this amounts to very little, since in what

that "constitution" consists we have not the slightest conception.

In the third place, the various influences to which we are subjected, are nearly innumerable. Heat, cold, moisture, drought, different kinds of food and of drink, modes of life, places of abode, feelings, passions, &c. &c. All these are constantly operating upon us, and affecting us to a greater or less degree. Hence the inhabitants of cold countries are unlike those of warm. Those who live upon hard and scanty fare, differ from those who are pampered with delicacies. Persons who are secluded and sedentary, are not affected in the same manner with those who are active and exposed, and those who breathe the atmosphere of a crowded city, do not resemble such as inhale the air of the country. In London consequently, and probably in New-York also, stimuli can be used with a freedom which in less populous places would be altogether inadmissible.

Fourthly. There is a principle in all animated beings modifying in a way entirely unknown to us, the action of every agent to which they are exposed, whether remedial or morbid. The existence of such a principle has, indeed, been denied; for in our happy profession, no proposition can be supposed too plain to be contested, (the circulation of the blood has been recently controverted) or too absurd to be maintained. I shall assume, however, that our disorders are sometimes relieved without the intervention of medicine, and as every effect pre-supposes a cause, the power operating in such cases may, I think, be well designated by the phrase, *vis medicatrix naturæ*.*

Lastly, every person has a certain individuality about him, physical as well as moral, which constitutes him what he is, and distinguishes him from all others of his race. These idiosyncrasies are what a patient means when he talks of his

* The term re-action is, indeed, frequently substituted; but this is specific, while the former is generic; they cannot, therefore, be used indifferently.

“constitution”—an expression covering an infinitude of quackery and imposition undoubtedly, but still having a real foundation.

To recapitulate. We have causes then innumerable, imperceptible, and ever varying, operating in the dark, through the instrumentality of agents of whose *modus operandi* we are ignorant—these agents themselves not acting precisely alike in any two individuals, and the whole modified by a power of which little more is known than the name. And yet these multifarious elements sometimes concurring, sometimes conflicting, occasionally one of them enjoying the supremacy and occasionally another, are all to be reduced to one solitary principle. Why, in comparison to simplification like this, the dreams of the alchemists were most hopeful philosophy.

The fate of these fantastic schemes, the second head of our inquiry, will not detain us long. Who hears now of the humoral pathology, or the error loci of one school, the spasm of a second, or the excitement, excitability, &c. of a third? But for our books, it would not be known that such notions had ever existed, although they convulsed, in succession, the medical world. Their oblivion, however, is in perfect accordance with the law which ordains that the promptness and certainty of dissolution are always in proportion to the facility and rapidity of production. For nothing is so easy as to construct what is dignified with the appellation of a Medical Theory. The following is the recipe. Take a fact true in one case at least, if it will hold in half a dozen, so much the better. Extend it to all times, places, seasons, persons, and circumstances. Let it embrace every malady that flesh is heir to; let it comprehend the whole human family, including men, women, and children, of every age, sex, colour, condition, and profession, and you have a theory possessing all the usefulness, truth, and stability which so very wise a proceeding can be supposed to confer.

But perhaps you think I have borne rather hard upon the theorists. It is not so, however, as a slight retrospect will show.

Thus it having been ascertained that our fluids are sometimes contaminated, the humoral pathology sprang into existence, and every thing was to be explained by a depraved state of our juices.

This being soon found insufficient, and it being observed that a constriction of the surface frequently takes place in fever, the spasm of Cullen became the cause of all mischief. This has equally passed away, and, not to be tedious, it has been finally succeeded by inflammation of tissues and surfaces, particularly of the stomach and bowels. Gastro-enteritis is accordingly the hobby of the day, destined, I have no doubt, to run the usual course of brief popularity and final oblivion.

But our countryman, Dr. Rush, the warmth of whose temperament carried him at once to the "ultima thule" of simplification, affords, perhaps, the best exemplification of what I have stated. He convinced himself of having attained, what he denominated, that the felicity of the expression might equal the magnitude of the discovery, *THE UNITY OF DISEASE*. In the fulness of his heart he communicated the sublime idea to one of his old medical friends and correspondents, who shrewd, sensible, and satirical, observed in reply as he informed me, "that one slight difficulty still remained, one little step was yet to be taken, and if Dr. Rush would only add the *unity of remedy*, the grand consummation would be complete." Unfortunately this was beyond the Doctor's power; and we have now, as formerly, to select as we can, from an abundant materia medica, which the chemists, thanks to their labours, are daily rendering more extensive and more efficient.

We come now to the evils which result from these excessive generalizations.

Of these evils the first and undoubtedly the greatest is, the sacrifice of human comfort and human life which they occasion. This I am aware has been controverted, and it has been contended that our practice has been more consistent and sound than our reasoning. This I believe to be true in part, but in part only. For it was observed of Dr. Cullen

that in the latter stages of fever, he was endeavouring to relax the spasm of his patients instead of supporting their strength. But this is the merest trifle, in my opinion, compared to the mischief inflicted upon mankind by Brunonianism and its opposite, the system of depletion. I know it was said by the friends of the great patron of the latter, that with him the doctrine was innoxious, his good sense correcting, at the bed-side of his patients, the folly of his notions, and that in practice Dr. Rush did not push blood-letting beyond other judicious prescribers. That this may have been true of him, I shall not deny. But how did the case stand with the multitude of young and ardent tempers who were annually turned loose upon the public, with imaginations inflamed by the unmerited and extravagant eulogiums of this favourite remedy? What was the price which the community had to pay, before *their* experience and tact could neutralize so dangerous an error?

2ndly. The promulgation of these fanciful speculations is particularly injurious to the junior part of the profession, who eagerly catch at them, and are thus diverted from the real business of their lives. To talk fluently of membranes, surfaces, tissues, and contra-stimulants, the cant phrases of the day, and the legitimate successors of excitement, excitability, state of the system, &c. is very easy, very captivating, very imposing—and very useless. Whereas to collect dry details, to arrange them methodically, and then deduce by patient and continued thought those inferences upon which the lives of their patients are hereafter to depend, have, in the first instance, nothing to allure the buoyant and impatient temperament of youth, always ready to spurn the earth and wing their way in the clouds, but sadly averse to delve where alone I fear the truth is to be found.

A third ill consequence resulting from these whimsies is the effect which they produce, not only upon the intellect, but upon the very senses of those who pursue them. The authors, and too frequently the supporters of a system, not only *believe* as they wish, but what is really wonderful, *perceive*

after the same manner—their minds and their perceptive organs being equally perverted. Accordingly, while such persons see, hear, and credit with the most extraordinary quickness and facility, whatever tends to support their favourite scheme, they have neither eyes, nor ears, nor faith for facts of a contrary description. And hence it is that so many unfounded and conflicting statements get abroad, both in and out of the profession—the multitude seeing, every man through his own glass. Distrust therefore, not the integrity, but the accuracy of all who have peculiar doctrines to maintain: for be assured, that it is by no means unusual for projectors to put forth, with perfect honesty, the most confident assertions which are entirely destitute of truth. Sometimes, however, it is impossible to predicate either truth or falsehood of their propositions—there being no evidence one way or the other. Take Mr. Broussais as an example, and I quote him, not because I think him more culpable than other speculators, but because he happens to be the leading theorist of the day. In the 29th and following sections of his physiology, of which alone I speak, he writes thus: “The ganglionick nerves preside over the interior movements or functions of the viscera which are independent of the brain, they are the grand agents therefore of the living chemistry.” “The ganglionick nerves receive and collect the stimulant influence of the cerebral nerves.” “The ganglionick nerves avail themselves of the vital force of the animal, for the purposes of this living chemistry.” And much more to the same effect, which I need not quote. Now from the calm, serious, and positive tone with which all this is stated, a suspicion of its fallacy would never enter the mind of an ordinary reader. He would take it for granted that every thing was as sound as it is fair, and that Monsieur Broussais was merely applying acknowledged truths to his particular purposes. Yet so far is this from being the case, that in the present state of our knowledge, what Mons. Broussais affirms of the ganglionic nerves, would be equally authentic if asserted of any other of the internal and intangible parts of

the body—so entirely ignorant are we of the real uses of the ganglionic system.*

Before I take my leave of Monsieur Broussais, I may remark, that I do not believe he will ever acquire the distinction and influence which some of his predecessors have enjoyed. I think so for two reasons. In the first place, there is, I am persuaded, less proneness in the profession than there was to be *notional*. But secondly and principally, the aphoristic form in which this gentleman has thought proper to clothe his opinions, though very striking at first, is on the whole disadvantageous. *There is an unfortunate perspicuity about it which is fatal.*† Mysticism, or at least a certain vagueness of expression, is indispensable to error. Where our vision is perfect there can be no deception, whereas a dubious twilight gives ample scope for supposed knowledge and real delusion. Moreover, in the midst of uncertainty every man will interpret to please himself. Proselytes are thus readily obtained, and when once engaged, having to contend at least as much for themselves as their masters, their self-love effectually guarantees their adhesion. And lastly, a disputant intrenched in a ambiguity, is invincible ; for if driven from one covert, he immediately takes shelter in another, saying, “O that is not what we contend for.” And this sort of *bush-fighting* is interminable—no proposition being ever admitted which is sufficiently definite to be battered down. Now the ideas and phraseology of Mr. Broussais wanting this convenient degree of obscurity and confusion, his system as an exclusive one, for doubtless the stomach and bowels are sometimes inflamed, will never, I apprehend, acquire any very great vogue.

* Majendie has torn out all the accessible ganglia without pain or other perceptible consequence to the animal ; the physiology consequently of these bodies is as unknown as the composition of the moon.

† Vide the curious discussion in Campbell's *Philosophy of Rhetoric*, “Why nonsense so often escapes being detected, both by the writer and the reader.”—*Philosophy of Rhetoric*, Vol. II. p. 112.

Let us revert, however, to the evils of such systems. A fourth is this. Facts which are at one time to account for every thing, are soon found to have been magnified beyond their deserts ; they are then neglected and ultimately denied. The spasm of Cullen is too recent to be controverted ; it is simply unnoticed, whereas the vitiation of our humours is stoutly contested, although the birth of children covered with the pustules of small-pox demonstrates the fact of our fluids being sometimes contaminated.*

There is one and but one more of the mischievous consequences of these wild speculations with which I shall trouble you. It is of a different character from those which I have already mentioned, and in some respects more injurious.

From the long continuance and almost universal prevalence of loose reasoning and rash generalization in the profession, every thing in medicine is yet unsettled. We have no elementary principles in which all are agreed, and we have consequently no conclusions to which all will assent. Whatever approaches to *system*, is in a state of perpetual change and revolution. In matters of detail, indeed, it is otherwise. New facts are observed, and new remedies are added, so that our practice undoubtedly improves, and improves greatly ; but beyond this, as to any thing which in legitimate language can be called *theory*, I am not aware there is any material amendment. Those who will theorize, as they term it, tread the same ceaseless round of premises which, if not false, are narrow, and of deductions which, if not altogether unwarranted, are pushed far beyond the truth. But this cycle of error alone proves there is something radically wrong. The toil of thousands, if well directed, must have made some advances. Yet in upwards of twenty centuries, in spite of every thing which numbers, zeal, learning, and talents could effect, how little, how very

* Mr. Abernethy says, that this does not happen earlier than the sixth month of fœtal life. From this it would appear that at this period the communication between mother and offspring becomes more free.

little has been gained from the terra incognita of systematic medicine? A similar result in the labours of those most ingenious personages the schoolmen, is well known to have convinced Lord Bacon that their philosophy was false. Would that another Bacon might arise, from the same premises deduce the same conclusion, and then regenerate the science of medicine, giving us certainty in our principles, uniformity in our practice, and permanence in our systems!

Upon the effects of so delightful a change, could it be accomplished, it is not my object to descant. But there is one benefit that would ensue upon which, as being less obvious, I will offer a few remarks.

The irritability and querulousness of the profession are proverbial and most lamentable. At all times and in all places has it been rent by discord, and divided into parties, sects, and schools. Let half a dozen medical men be required to give their professional opinions to the public, and they certainly disagree about their facts, and almost as certainly fall to calling each other hard names. But assertions, contradictions, and criminations, however well calculated to excite derision and contempt for the parties concerned, do nothing towards the elucidation of the truth. The *Doctors* are therefore very properly set aside, and the matter is disposed of as common sense seems to dictate. That my picture is not overcharged, every one conversant with medical history knows, and those who wish for further information, that I *may not come too near home for examples*, are referred to the discussions which took place in England on the quarantine laws, and the testimony in what is called the Gardner peerage case.

Now this irritability of the profession proceeds in a very great degree, if not exclusively, from the vacillating and dubious state of its principles. Accordingly among those who cultivate the exact sciences, little or nothing of the kind is observable. Among them the certainty which attends every step produces calmness and equanimity, or should a difference of opinion arise, it is settled at once without difficulty or animosity by an appeal to data universally admitted to be

true. In medicine all this is reversed. Nothing being determined or fixed, every one is at liberty to construct a system according to his own fancy; and as no employment is more delectable to minds of a certain, and by no means uncommon description than castle-building in all its varieties, these aerial structures of course abound.* Unfortunately, however, *exclusiveness* is the very essence of such schemes, and projectors, like other potentates, “can bear no rival near the throne.” Contests and collisions therefore between the parties are unavoidable; and all being equally ready for defence or attack, and alike unprovided with authenticated facts to support themselves or confute their opponents, they are compelled to dismiss reason and logic, and then of course have to rely upon the poor weapons which petulance and passion can supply. The consequences may be readily imagined, and have indeed already been detailed. Let us endeavour then to correct our philosophy, that our manners as well as our minds may be benefited by the reformation.

I have thus, gentlemen, laid before you the deplorable effects of this rash spirit of generalization which has so greatly infested the profession, and which with its consequences, constitutes the true and only opprobrium medicorum.† But be-

* These *day-dreams*, while they tickle most agreeably the imagination, constitute no tax upon the mind in the way of labour or thought. Were they only as harmless to others as they are pleasant to the individual, the philosopher would smile, but never think of awakening the dreamer.

† Notwithstanding the blot mentioned in the text, the medical escutcheon is one of which any member of the profession may justly be proud. Engaged in the discovery of truth, and in its application to the relief of human suffering, constantly associated with females who constitute much the better portion of the community, and who are then in the situation best calculated for the display and exercise of their virtues, the intellect and the feelings of the physician are equally exposed to the most benign influences. And hence, I presume, it has happened that of those who *minge much with the world*, a species of contact extremely apt to leave a soil behind it, the best moral exemplars whom I have ever seen have been medical men.

fore I take my leave of this part of my subject, there are two remarks which I have to make. In the first place I must caution you against supposing that I wish to condemn in the gross the eminent men whose names I have had occasion to mention. So far from this, I willingly acknowledge that they were endowed with great talents, and I further concede, that they were the authors of much good. But with this good was mingled no small portion of evil; and it is to guard you against the one, while you take advantage of the other that I now address you.

My second observation is this. The opinions which I have now expressed are by no means the hasty conceptions of the moment, dressed up for the occasion. On the contrary, they were my settled convictions long before I could trace and methodise them as I have now done. They arose, indeed, while I was yet a student; and as facts, which produced so deep and permanent an impression upon me, may not be without their influence upon you, I will state the occurrences to which I allude.

When I began the study of medicine, the doctrines of Dr. Rush were all the fashion, and like other young men, I imbibed them fully. Thus impressed I went to London, and walking through the wards of St. Thomas' Hospital not long after my arrival, I saw a patient with a full bounding pulse in a high state of erysipelatous inflammation. Here then was a case requiring, according to my theory, copious blood-letting and other depletions. Yet when I asked the nurse what the man was taking, "*Bark*," was the reply: *Bark*, said I, and how often? "Every three hours." And in what form? "Powder, tincture, and infusion, the mode in which we use it." You may easily imagine my astonishment. In forty-eight hours I observed to myself, this poor man will be dead. Next day I stopped to see how he was, found to my astonishment that his pulse had subsided under the use of these stimulants, and that he was better. In a few days he was discharged cured. Fact and hypothesis, you thus perceive, were brought fairly to issue, and with a sigh I have no doubt, although I do not now recollect it, the latter was obliged to yield. Had the

bantling been my own, instead of having been adopted, the result might have been different. As it was, however, I abandoned my much cherished notions. But I soon found that I was not alone in error—the medical officers of the institution pushing their doctrine as far into one extreme as I had gone in the other. A man broke his leg, and was attacked in consequence with erysipelas: they gave him bark, and in two days he was a corpse.

Conversing on this subject a few years ago with the most eminent member of the profession in our country, I stated the circumstances which I have just mentioned. “Why,” said he, “something of the same kind occurred to myself while a student. Going warm from my books with my head filled with Cullen’s fine description of a paroxysm of fever, I found a man labouring under a severe attack of it. ‘So, my friend,’ said I to him, ‘you first began to feel sluggish, then cold, and so on.’ ‘No indeed,’ replied the man, ‘I felt no such thing. I was never better in my life, when all at once I began to burn, and have been as hot as fire ever since.’ I was,” he continued, “as much disconcerted as yourself, and became immediately aware that all was not right.” That all is not right is certain, and it only remains to render that so which has heretofore been wrong. But on this point I shall be exceedingly brief, as nothing could be more absurd than an attempt to point out new modes of arriving at truth. They are already sufficiently well known; the difficulty being here, as in cases of more importance, not to see, but to follow the straight and narrow path.

Facts, as I have before stated, are the basis of all philosophy; and to ascertain these, is of course the first great object. Now there are four methods by which this can be done—observation, experiment, calculation, and deduction. Of these, calculation is excluded from medicine: we must content ourselves, therefore, with the other three. Of these, the first and second are by far the most important. But experiments, from the peculiar circumstances of the profession, should be attempted with more reserve and caution than I fear are frequently practised. In hydrophobia, tetanus, hydrocephalus, and other equally intractable disorders, the administration of

novel and hazardous remedies, provided they hold out a glimpse of hope, is both justifiable and commendable. But as a disease becomes controllable, whether we consider the time in which it can be cured or the ease and certainty with which this can be effected, we are to abstain from tampering with the life or comfort of a patient.

With regard to *inferring conclusions*, whether general or particular, if what I have said do not teach you prudence and circumspection, it were useless to add any thing further. Let me remind you, however, that the reverse of error does not constitute truth. The golden rule of Aristotle, and a most golden one it is, enjoins upon us that virtue is equally removed from ALL extremes. Do not, therefore, in your anxiety to avoid vain and pernicious speculations, become downright empirics—a mistake infinitely less dangerous no doubt and unfrequent than the other, but still a mistake, and therefore to be avoided. I must add, however, that when we observe the manner in which medical investigations have been conducted, and the evils which have thence ensued to the profession and the public, a little extra horror of hypothetical reasoning is, in my opinion, by no means to be censured. Reasoning of this description, be it remembered, even when well founded, and according to Dr. Fordyce it is in every case a million to one that it is false,* is by no means indispensable to the melioration of the healing art. He who should discover a remedy for tubercular consumption, would be quite as great a benefactor to humanity as he who should generalize, with success, the phenomena of fever. Simplification is doubtless desirable, but extension is more so, and these two improvements by no means and of necessity go on *pari passu*. In astronomy, indeed, this has been remarkably the case. For supposing the heavenly bodies once put into motion, every thing can be traced to the single fact of mutual attraction. But this is a peculiarity in the sublimest of the physical sciences, and admits of no parallel. In chemistry, on the other hand, the most progressive of philosophi-

* He argued thus. On every subject a million of hypotheses may be formed—therefore, it is a million to one against any one hypothesis.

cal pursuits, the reverse has been the fact—the complexity of the science having increased in a full ratio with its utility and importance. The ancients were contented with four elements. These have been discarded altogether, and in place of them we have now fifty, and may hereafter have fifty more. Now a living body may be esteemed a chemical apparatus, exceedingly curious and complicated, and possessed, moreover, of a power to which in mere chemistry there is nothing analogous. Common sense, therefore, seems to me to teach us, that the operations of such a machine must be proportionally involved, and that consequently, any violent simplification of them is necessarily false.

What can be alleged then under this head, may be summed up in a single sentence. It is our business “to observe well, to observe long, and to observe all;” to experiment when allowable with care and accuracy, and from facts thus ascertained, deduce the principles which they warrant.

I have thus I hope, gentlemen, satisfied you of the truth of the propositions which I undertook to establish, “that our philosophy is wrong, and that it requires to be corrected.” And I hope you are further convinced, that all attempts at extensive generalizations in medicine are premature, and at this time injurious, and consequently, that for the present at least, we must content ourselves with the third mode of philosophizing which I have mentioned. In other words, that it is for us to detect the *special* causes of disease and to control them and their effects, so far as it may be in our power. And as to the general laws which regulate the operations of the human system, whether morbid or healthy, since no intellect on earth can now detect them, they are to be reserved for one of those superior geniuses, *who, born at a lucky moment*, are destined to shed light and lustre upon the world.

Such, gentlemen, are the conclusions to which we have arrived, and on which I wish your minds finally to rest. But clear as I trust our results are in the abstract, how far they are likely to be adopted in practice, is a question which I almost fear to ask myself. *Our very nature is against them.* Useless silly conjectures, therefore, and vain aspirations after splendid theories, although they degrade the profession, and what is

immeasurably worse, although they sacrifice our patients at the altar of our follies, are still too deeply rooted in our dispositions to be readily abandoned. For thus it ever is with the sons of Adam. Prone to evil and averse to improvement, the effort to reform them is of all human undertakings the most forlorn. With the old and the bigoted, the task is absolutely hopeless. But with you, whose minds have yet received no particular taint, and whose only object is advancement in the cause in which you are engaged, the prospect is better. Upon *you* some effect may be produced, and from you, consequently, my colleagues and myself may derive the highest reward which teachers of medicine can ever attain—that their pupils at the close of a long and successful professional career, should look back with pride and satisfaction upon THE LESSONS WHICH THEY IMBIBED FROM THE PRECEPTORS OF THEIR YOUTH.

ART. II. *An Account of some of the Lunatic Asylums in the United States.* By T. ROMEYN-BECK, M.D. Professor of Medical Jurisprudence in the University of the State of New-York.

INSANITY, with its causes, its increase and its treatment, is a subject of deep interest to every civilized community. Its peculiar but melancholy characteristic, which forbids any reasonable hope of cure, unless the diseased subject is removed from his home and relatives, imposes the duty on governments of providing for its proper management, both as to safe-keeping and as to the means of recovery. That the legislators of this country and its inhabitants have not been unmindful of this obligation, we shall endeavour to show in the course of the present article.

We shall first notice the Lunatic Asylum of this state.

The “*Society of the New-York Hospital*” was incorporated in 1771; and by the liberality of domestic contributors, the legislature of the province, and contributors in England, sufficient funds were obtained for the erection of a proper building. This was proceeded in with great spirit, but in Feb. 1775, when it was almost completed, it accidentally took fire and was nearly consumed.